whatsapp us on +233 244 284055 do you want to contact any District Just type DCE leave a space, type the DISTRICT NAME then your MESSAGE or call us on +233 574 117633 when done, just send it to 1406 on all Networks from your phone Ashanti | Brong Ahafo | Central | Eastern | Greater Accra | Northern | Upper East | Upper West | Volta | Western



Schedules-Part 3 & 4

PART 3—Site Preparation and Landscape Development

A site for a building or a structure which is intended for human habitation shall be effectively cleared of turf and other vegetable or organic matter that may be injurious to health and may cause rapid deterioration of the materials to be used for the building or structure.

- 1. The subsoil of the site shall be effectively drained; or such other steps shall be taken to effectively protect the building against damage from moisture where the soil is waterlogged, damp or susceptible to seasonal flooding or periodic elevation of the subsoil water-table during wet seasons.
- Where an existing subsoil drain is damaged during excavation in connection with a building, works or fittings, adequate precautions shall be taken to secure the continued passage of the subsoil water through such drain or ensure that water entering damaged drain does not cause dampness to the site of the building or structure.
- 3. Any of the following precautions shall be considered as satisfying the requirements for prevention of dampness in the substructure—
- the use of an agricultural drain which is so located that the subsoil moisture is channelled below the foundations of the building or structure;
- the use of cross or ringed subsoil drainage that takes into consideration the topography of the site to lower the storm water level from the bottom of the foundation of the building or structure;
- the injection of chemicals or cementation materials into the subsoil to improve the texture, physical stability and resistance to subsoil moisture passage; or
- the use of vibro-flotation or other mechanical processes which ensure adequate compaction and consolidation to mitigate dampness passage through the subsoil.
- 1. Prevention of ground water rising into a building or part of Dump-proof any building which is next to the ground shall be effected in accordance with this regulation so as not to allow the passage of ground moisture to the upper surface of the floor.
- Any floor close to the ground shall be so constructed as to prevent any part of the floor from being adversely affected by moisture or water vapour.
- Hardcore shall not contain water-soluble sulphates or other deleterious matter in such quantities as to be liable to cause damage to any part of the floor.
- 4. It shall be sufficient for the purposes of satisfying subregulations (2) and (3) of this regulation if-
- the ground surface is covered with a layer of concrete not less than 100mm thick, composed of cement fine and coarse aggregates which conform to Ghana Standards or BS882:1954, and properly laid on a bed of hardcore;
- the concrete is finished with trowel or spade and so laid that its top surface is not below the highest level of the surface of the ground or paving adjoining any external wall of the building;
- there is space above the upper surface of the concrete of not less than 75mm to the underside of any wall plate, and not less than 115mm to the underside of the suspended timbers and the space is clear of debris and has adequate through ventilation; or
- there are damp-proof courses in such positions as to ensure that moisture from the ground cannot reach any timber or other material which would be adversely affected by it.

It shall be adequate for the purpose of satisfying paragraphs and of sub-regulation if the ground surface is covered in the manner described in paragraph of subregulation within the concrete slab there is incorporated a damp-proof sandwich membrane of a continuous layer of hot applied soft bitumen or coal-tar pitch of not less than 3mm thick; three coats of bitumen solution; bitumen or rubber emulsion or tar of not less than 3mm thickness; or the timber is laid or bedded directly upon a damp-proof course of asphalt or pitchmastic of not less than 13mm thick; or where the floor incorporates wood blocks of not less than 16mm thick the blocks are dipped in an adhesive of hot soft bitumen or coaltar pitch and laid upon the concrete such that the adhesive forms a continuous layer.

- 1. The membrane, damp-proof course or layer of adhesive mentioned in subregulation (5) must
 - be situated at a level not less than 150mm above the highest level of the surface of the ground or paving adjoining any external wall of the building and
 - be carried up the walls adjoining the floor to the level of the upper surface of the floor; and
 - o be continuous with, or joined and sealed to any damp-proof course

More Info:

- First To Seventh Schedule
- Schedules
- Schedules-Part 1 & 2
- Schedules- Part 3 & 4
- Schedules-Part 5
- Schedules-Part 6 & 7
- Schedules- Part 8, 9 & 10
- Schedules- Part 8, 9 & 10
- Schedules-Part 11, 12 & 13
- Schedules- Part 14, 15 & 16
- o Schedules- Part 17, 18 & 19

View Links:

- Chieftaincy Act, 1971
- Ghana Investment Promotion
- **Human Trafficking**
- **Local Government Act**
- Minerals And Mining
- Narcotic Drugs
- National Building Regulations
- National Identification Act,
- National Labour Commission Regulations, 2006
- Pndc Law
- **Presidential Commission**
- Trade Policy
- W/ African Gas Pipeline Act,

- inserted in any wall, pier, buttress, column or chimney adjoining the floor; and
- where the timber is fixed to wooden fillets embedded in concrete, the fillets are either
- treated in accordance with the provision of Ghana Standard or BS3452:1962 or
- impregnated under pressure with a aqueous solution of copper-chromearsenate.

Any surface subsequently exposed by cutting timber for fitting into the building, shall be thoroughly treated by dipping, spraying or brushing using a aqueous solution of not less than 10 per cent of copper-chrome-arsenate or any other suitable non-leeching wood preservative. Any wall, pier or column of a building and any chimney shall Protecting of be so constructed as not to transmit moisture from the ground to any material used in its construction which is likely to be adversely affected by such moisture. It shall be sufficient for the purposes of subregulation if the wall, pier, column or chimney—

- has a damp-proof course which forms part of an external wall, the pier, column or chimney is at a height of not less than 150mm above the finished surface of the adjoining ground and any paving;
- has such other additional barriers to moisture in continuation of the dampproof course required to ensure that moisture is not transmitted to any timber or to the interior of the building;
- extends below the level of the damp proof course required by sub-regulation
 (1) and it is constructed below that level wholly of materials not likely to be
 adversely affected by moisture from the ground.

Any external wall, parapet, pier or column which forms part of an external wall and any chimney, shall be so constructed as not to allow moisture from rainfall to pass to any pan of the building and shall be so constructed as to resist effectively the penetration of the moisture to the interior of the building. Where damp-proof courses are inserted in the leaves of any Prevention of cavity wall constructed of bricks or blocks in order to satisfy the requirements of regulation 22, the cavity shall extend

not less than 150mm below the level of the lower damp-proof course unless the structure forming the bottom of the cavity complies with sub-regulation of this regulation. In any such wall, wherever a cavity is bridged otherwise than by a wall tie, or the bridging occurs at the top of a wall in such a position that it is protected by a roof, a damp-proof course or flashing shall be inserted in such a manner as will prevent the passage of moisture from the outer leaf to the inner leaf of the wall.

Where there is an opening in such a wall, the jambs shall have a suitable vertical damp-proof course unless the cavity is closed in such other manner as will prevent the passage of moisture from the outer leaf to the inner leaf of the wall. The roof of any building shall be weather-proofed and be so constructed as not to allow moisture from rain water to enter any part of the resistance of structure. It is the duty of the District Planning Authority—

- to ensure, where appropriate, that in the preparation of the site for development, adequate provision is made, through the imposition of conditions, for the preservation of ecological values and for the planting of trees:
- to specify such landscape conditions as appear to the Authority to be necessary in connection with the grant of such permission;
- to ensure that in preparing the site for landscape development adequate precautions are taken against moisture deposits and dampness on buildings through vegetative transmission;
- to ensure that tree planting does not breed termites and other pests unduly detrimental to building preservation;
- to ensure that landscape development does not impair both surface and subsoil drainage;
- to ensure that tree planting and landscape development do not block drain pipes leading to a sewer, drain, ditch or dry well;
- to ensure that trees are planted at reasonable distance away from underground utility services such as water, electricity and telephone;
- to ensure that trees are not planted underneath or within reach or felled in the paths of overhead utility wires, such as electricity, telephone, radio and similar public utilities.

Where it appears to a District Assembly that it is expedient in the interest of amenity and the welfare of the community to make provision for the preservation of trees or woodlands, the authority after consultation with the Forestry Department may by bye-laws provide for the preservation of such trees, or may make the preservation of the trees a condition for approval of building plans. Such bye-laws may prohibit the cutting down, topping, lopping or wilful destruction of trees except with the consent of the District Assembly which may grant conditional consent or approval. Such bye-laws may order the replanting of trees in such a manner as may be directed by the District Assembly. A District Assembly shall take appropriate steps for restricting or regulating the display of advertisements so far as appears to the authority to be expedient in the interest of amenity or public safety. A District Assembly shall provide—

- for regulating the dimensions, appearance and position of advertisements, display boards, the sites on which the advertisements may be displayed and the manner in which they are to be affixed to the land;
- 2. for attaching other specified conditions of approval to the application; and
- 3. for the delineation of certain "advertising free zones" where no advertising in any form shall be permitted.

PART 4—Materials for Building Any material used—

- in the erection of a building:
- in the structural alteration or extension of a building; or
- in the execution of works or the installation of fittings, being works; or fittings
 to which any of these Regulations apply shall be of a suitable nature and
 quality for the purposes and conditions in which they are to be used, and shall
 be adequately mixed or prepared and applied, used or fixed so as to
 adequately perform the functions for which they are intended.

The use of any material or any method of mixing or preparing materials or of applying, using or fixing materials which conforms to an approved Ghana Standard Code of Practice or the appropriate BSCP that prescribes the quality of materials or standards of workmanship shall be accepted to be sufficient compliance with subregulation. A District Planning Authority may reject plans for the construction of a building with materials which, in the absence of special care, are liable to rapid deterioration or are unsuitable for use in the materials. Construction of permanent buildings and may—

- impose condition for the use of any such material and
- specify a period after which a building built with a specified type of material should be removed.

Subject to regulation 30 no wall or roof of a building shall be constructed of any sheet material whether flexible or rigid supported directly or indirectly by air or other gaseous substances. The materials specified in column 1 of Part 1 of Schedule 3 to these Regulations are unsuitable where used as weather-resisting part of an external wall or roof subject to the exceptions provided in relation to them in columns 2 and 3 in the Schedule. Any material specified in column 1 of Part 11 of Schedule 3 to these Regulations which is of the standard specified in relation to it in column 2 or 3 of the Schedule shall be considered as satisfying the relevant provisions of these Regulations where applicable. The provisions on materials, construction and quality of materials set out in Part 111 of Schedule 3 to these Regulations shall apply in respect of the matters specified in the Schedule in relation to them for the purposes of these Regulations.

In determining, for the purposes of these Regulations whether or not a material is used as water-resisting part of an external wall or roof, no account shall be taken of that material where it is either painted or rendered with any other material which, when so used, does not in itself constitute effective resistance against the weather. The materials, elements and components for the erection of any building or any installation for which approval has been given may be subjected to appropriate tests, if the District Planning Authority so requests. Subject to the nature and type of material, element or component or works, a District Planning Authority may specify the nature of the test to be conducted and may take samples at random for the test. Where the material, element or component has already been built, covered or buried underground, the District Planning Authority may request the works to be opened up for examination; and if found defective, the works shall be corrected to the satisfaction of the Authority. Where the defect has been corrected a certificate to that effect shall be issued by the District Planning Authority. The following materials may be used in the construction of buildings so long as they conform to the provisions of these Regulations

- mud or swish used in plastic state to erect an earthen wall or for atakpame walling;
- 2. wattle and daub;
- 3. pise or earth rammed between wooden or other formwork to make a wall in situ;
- 4. unburnt earth bricks or blocks (adobe);
- 5. stabilised earth products, bricks or blocks (or landcrete);
- 6. burnt clay products;
- 7. sandcrete, concrete or reinforced concrete;
- 8. thatch or leaves in roofing or otherwise;
- 9. timber or bamboo products;
- 10. asbestos-cement products;
- 11. metal products;
- 12. glass and synthetic materials;
- 13. stone products;
- 14. lime-based materials; and
- 15. other approved building materials.

The mortar mixes for building specified in column 1 in Table A in Schedule 3 to these Regulations shall be as specified in relation to the purpose specified in columns 2, 3 and 4 in the Table. The size of aggregate and proportion of concrete cement mix shall be in accordance with Table B in Schedule. Notwithstanding the provisions of Regulation 32 a District Rejection of Planning Authority may, having regard to the architectural values and application the general standard of development of any particular area, reject any application for approval of a building, if in its view, the building would detract from the general trend of development in that area. A person aggrieved by a refusal under subregulation (1) of this regulation may submit a complaint to the National Development Planning Commission within 30 days of becoming aware of the refusal.

SCHEDULE 3 - PART 3 Regulation 30(5)

Construction Materials, Quality and Purpose Mud Wall (Atakpame) Materials

- Any of the following soils may be used for mud wall construction
- swish;
- clay;
- laterite;
- other soils that have not more than 25% organic matter.

Materials may be stabilised with Portland cement or bitumen. All mud wall materials shall be of composition with not less than 25% sandy particles. The mud used shall be premixed at least one day in advance of use to ensure the breaking down of lumps into clear smooth consistency and to allow excess of moisture to evaporate.

Foundation for Mud Wall

Foundation supporting external mud walls shall be made of established materials. The following shall be considered to satisfy this requirement—

- any of the materials specified under paragraph A of Part 1 of this Schedule with at least 4% Portland cement as base;
- 2. sandcrete or concrete block;
- 3. soil stabilized blocks of not less than 4% of Portland Cement;
- 4. soil stabilised blocks of not less than 5% bitumen used as the stabilising agent and introduced warm during the mixing of the soil.

Construction

The top of the foundation walls shall be laid to a minimum height of 150mm above ground level. The stabilished building units for the foundation walls shall be laid in any one of the following composition mortars—one part to six parts cement/sand mortar where Portland cement is used as the stabilising agent in the manufacture of the blocks; or one part to eight parts bitumen/sand mortar where bitumen is used as the stabilizer in the manufacture of the blocks. Foundations shall be constructed to satisfy the provisions in regulation 35 of these Retaliations. The foundation walls shall be not less than 255mm in thickness for ground floor buildings and not less than 325mm for one and two-storey buildings. Mud walls shall be laid in lifts of not more than 600 mm heights. Each lift shall be allowed to dry out and harden sufficiently to withstand deformation due to loading of subsequent courses laid over before the next lift is laid.

The vertical faces of the walls shall be maintained plumb relative to the foundation walls. The top of a mud wall at lintel level shall be provided with a binding core to assist in the spreading of the roof loads evenly over the whole wall.

- There shall be laid hardwood timber flat over all the top of the walls with lapped jointing at the ends where the plates meet.
- Reinforced concrete course shall be provided and flat steel plate built over the walls.
- The roof plate shall be anchored to the binding course using hoop from iron or mild steel rods.

Insulation of Mud Walls

- The insulation of the walls against the effect of the weather shall be soil/ bitumen plaster smooth trowelled and sealed over with a two-coat lime wash or any other shading of cement/emulsion paint.
- 2. The mortar shall be in the following mix proportions- external surfaces: 1:10 bitumen/soil plaster; internal surfaces: 1:12-14 bitumen/soil plaster.
- 3. The plaster shall be of one-coat minimum 13mm thickness.

Fence Walls

- The foundation walls of a fence wall shall be considered to satisfy the specification if they conform to paragraph of this Part of the Schedule.
- The fence walls shall conform to all the minimum requirements specified in paragraph 2 of this Part of the Schedule.
- Fence walls shall be provided with copings made out of stabilised materials and primary materials capable of withstanding the effects of the weather; the following materials shall be considered as suitable for the purpose— concrete; burnt bricks; sandstone; seasoned and formed timber.
- The copings shall be provided with reasonable weathering to throw off rain water.

Drainage Around Mud Building

Adequate storm water drainage shall be provided around the mud building and in the case of compound houses, the compounds shall also be effectively and adequately provided with drainage to keep the feet of the walls dry. Shingles—Shingle Roof Materials Materials for a shingle roof shall be— timber; and nails.

Quality of Timber

Timber for shingles shall be of naturally durable type or made from durable species and shall have the following characteristics—

- non-twisting, non warping;
- less splitting;
- · minimum shrinkage;
- all heartwood;
- edge grain quarter sawn;
- free of knots;
- be quarter sawn.

Types of Timber Recommended for Shingle Roof

- 1. Emeri (Idigbo) 15-20 years durability
- 2. Odum (based on work by Irvine's Woody Plants in Ghana);
- 3. Kokrodua (F.P.R.I. Lab Test Reports);
- 4. Cedrella;
- 5. Bubinga.

Quality of Nails

- Nails for fixing shingles shall be of best quality and shall be of hot smelter galvanized;
- 2. Nails of aluminium or copper, may also be used. Ordinary wire nails should not be used.

Rust-resistant nails should be used and zinc coated nails are also recommended.

Sizes and Structure of Shingles

Wood shingles shall be a rectangular piece of wood tapering in thickness along the grain to facilitate their overlapping when covering roofs and exterior walls. Sizes of shingles shall normally be of the following measurements—

- length: 400/450mm and 600mm;
- thickness ranges from 10mm to 20mm at the butt end and may tape to about 3mm at the head; and
- the width varies from 100mm to 350mm.

Preservative Treatment of Shingles-Durability

- To increase the life of singles it is recommended that preservatives be applied.
 Pressure treatment with organic solvents or tar oils or water borne preservatives that are not leacheable are suitable for exposed structures.
- 2. The shingles shall be made of seasoned timber material of moisture content not greater than the equilibrium moisture content of the area where it is to be used e.g. 12-20 per cent for the Northern part of Ghana.

Workmanship

- 1. Exposure; this means how much of each shingle contacts the weather. The amount of exposure depends upon the pitch of the roof.
- 2. A good shingles roof should never be less than 3 layers thick, therefore the exposure should never exceed % of the length of the shingles. If the roof rises at 22 degrees or steeper, the recommended maximum exposure for each length of shingles should be—
- · for 400mm shingles an exposure of 125mm;
- · for 450mm shingles an exposure of 140mm;
- for 600mm shingles an exposure of 190mm.

If the roof pitch is less than 22 degrees but not below 14 degrees the recommended maximum weather exposure should be— $\,$

- 1. for 400mm shingles an exposure of 85mm
- 2. for 450mm shingles an exposure of 110mm
- 3. for 600mm shingles an exposure of 150mm

Reduction of weather exposure should not exceed 25% of the length of the shingles on lower pitched roofs. The thickness of the roof is increased from 3 to 4 layers of shingles.

Types of Roof Deck

Recommended spacing of rafters are— $75 \text{mm} \times 50 \text{mm}$ spaced at 70 mm centres with battens 50 mm \times 25 mm, alternatively rafters can be 75 mm \times 40 mm spaced at 60 mm centres with 40 mm by 20 mm battens.

How to Construct a Shingle Roof

Begin with a double thickness of shingles at the bottom edge of roof; let shingles protrude over to assure proper spillage into eavetrough or gutter; nail shingles so that next row above will cover nails by at least 20mm; nails should not be placed further than 20mm from the edge of shingle; no matter how wide the shingle is, use only two nails in each shingle; it is easy to use a board as a straight-edge to line up rows of shingles. Tack the board temporarily in place for guide; space shingles about 6mm apart to allow for expansion and to prevent possible 'buckling'; never have two joints in line if separated by only one course of shingles; a side-lap of at least 40mm between joints in successive course should be left.

Refer to pdf file for tables



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